From academic to entrepreneur

OTD FAS/SEAS Research Administration Luncheon
Cambridge, MA, 25 April 2013
Laser beam stopper
Black silicon
Black silicon

3 µm
Black silicon
Black silicon

http://www.sionyx.com


Harvard Spinoff Company Takes on $200 Billion Global Market for Silicon

David L. Shenkenberg, Features Editor, david.shenkenberg@laurin.com
Imagine if a new substance could replace silicon, a material that is used in almost every electronic device on the market today. SiOnyx Inc. plans to do just that with its new material, black silicon, which was discovered at Harvard University in Cambridge, Mass.

Dr. James E. Carey, SiOnyx Inc. co-founder and principal scientist, holds a black silicon wafer in the cleanroom at company headquarters in Beverly, Mass.

I recently sat down with Stephen D. Saylor, CEO of SiOnyx, and Dr. James E. Carey, its co-founder and principal scientist, at the company's headquarters in Beverly, Mass., which is about 20 miles northeast of Boston.

Carey and Saylor told me that the potential applications of black silicon are numerous because it could be employed wherever silicon is currently used: in computers, satellites, cameras, mobile phone cameras, solar panels and radiological imaging equipment.

“We believe that the technology meets its highest purpose in the commercial markets,” Saylor said. The industry for silicon chips in mobile phone cameras alone is $7 billion, out of a $200 billion global market for silicon. “To get venture capital, you have to show that there is a big (market), and there is a big (market) for black silicon,” Saylor said. SiOnyx has raised $11 million in venture funding from Benchmark Partners and Harris & Harris.
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learning | catalytics

Gary King  
Brian Lukoff  
Eric Mazur
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This image shows Oahu as seen from the Space Shuttle. The image provides several clues about the direction of prevailing winds in Oahu. Indicate this direction by drawing an arrow on your screen.
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Pearson Acquires Ed Tech Startup, Learning Catalytics™

Real-time learning analytics and assessment system enables faculty to connect instantly with students’ personal devices to personalize learning.

New York, N.Y. — April 22, 2013 — Pearson, the world’s leading learning company, announced today that it has acquired Learning Catalytics™, an advanced, cloud-based learning analytics and assessment system developed by Eric Mazur, Brian Lukoff, and Gary King of Harvard University.

Research has shown that instant feedback as well as peer-to-peer engagement helps improve student comprehension. Learning Catalytics allows faculty to obtain real-time responses to open-ended or critical thinking questions, determine which areas require further explanation, and then automatically group students for further discussion and problem solving. The system supports numerical, algebraic, textual, and graphical responses. The comprehensive and advanced analytics also help faculty better understand student performance in real time while lecturing.

“A wide body of research has long supported peer instruction, student engagement, and active learning in the classroom,” said Paul Corey, Pearson Higher Education president of Science, Business, and Technology. “What attracted us to Learning Catalytics is its unique ability to make these proven learning technologies more available in and outside the classroom, to enrich them with more actionable data and innovative analytics, and, ultimately, to make them even more effective. The use of Learning Catalytics in the classroom also enables instructors to be more effective. Faculty benefit greatly from the graphical dashboard in the classroom and more detailed results afterwards; and equipped with these insights, they can dive more deeply into areas of common misconceptions or make adjustments in real-time.”

Students with questions and receiving their immediate responses, faculty can see a snapshot of their class’s current state of learning in their classes. Faculty can then adjust their in-depth instruction on areas of common difficulty to author questions directly, or further improve upon the movement of traditional voting rates, comment, and improve upon.
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17 US & 6 non-US patents issued
13 US & 7 non-US patents pending
Thank you, OTD!
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Thank you, OTD!

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